

CALIF. DEPT. OF PUBLIC WORKS
DIVISION OF S.F. BAY TOLL CROSSINGS

REPORT ON

SOUTHERN CROSSING OF S.F. BAY

DECEMBER 1957

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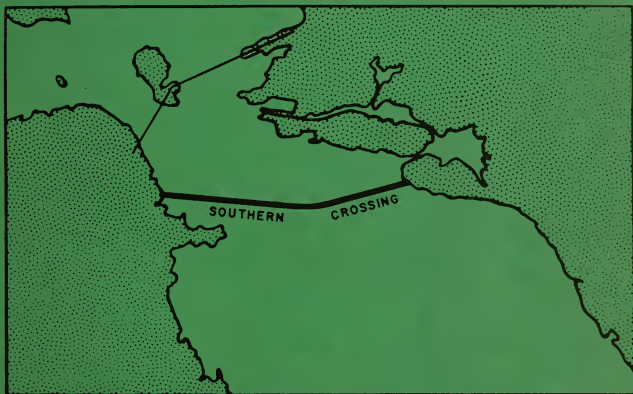


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SOUTHERN CROSSING

OF SAN FRANCISCO BAY



DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

DOCUMENTS DIVISION

FEB 1958

STATE OF CALIFORNIA

DECEMBER 1957

A REPORT
TO THE
DEPARTMENT OF PUBLIC WORKS
ON THE
S O U T H E R N C R O S S I N G
OF
SAN FRANCISCO BAY

December 1957

Division of San Francisco Bay Toll Crossings
Department of Public Works
State of California



STATE OF CALIFORNIA

Goodwin J. Knight
Governor

* 352.7
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[1957]
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DEPARTMENT OF PUBLIC WORKS

Frank B. Durkee
Director

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N. C. Raab
Projects Engineer

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----------------------	--

LEGAL

Robert E. Reed	Chief, Division of Contracts and Rights of Way, Department of Public Works, California
----------------	--

BOND COUNSEL

George Herrington	Orrick, Dahlquist, Herrington & Sutcliffe, California
-------------------	--



STATE OF CALIFORNIA

Department of Public Works

SACRAMENTO

December 2, 1957

Honorable Goodwin J. Knight, Chairman
California Toll Bridge Authority
Sacramento, California

My dear Governor:

Transmitted herewith is a supplementary engineering report on the Southern Crossing of San Francisco Bay. This report was made necessary by the enactment of legislative amendments, Chapters 866, 2249, and 2316, Statutes of 1957, affecting the Southern Crossing Act of 1953.

Chapter 2316 adds to the Streets and Highways Code Sections 30609 and 30660 authorizing the Department of Public Works, for a four-year period, to utilize San Francisco-Oakland Bay Bridge revenues for the purpose of altering the Bridge for all-vehicular use and the Terminal for motor bus operation. It also provides that if financing for the construction of the Southern Crossing has not been completed prior to July 1, 1958, the present statutes pertaining to this Crossing shall be of no further force or effect.

This report has been prepared to revise all estimates of construction costs in order to determine the feasibility to finance the Crossing.

The reports on estimates of traffic and revenue and the feasibility of financing the project will be filed with the Legislature and appropriate committees thereof.

Respectfully submitted,

A handwritten signature in cursive script that reads "Frank B. Durkee".

FRANK B. DURKEE
Director of Public Works

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

Division of San Francisco Bay Toll Crossings

2054 UNIVERSITY AVENUE
BERKELEY 4, CALIFORNIA

December 2, 1957

PLEASE REFER
TO FILE NO.

Honorable Frank B. Durkee
Director of Public Works
Sacramento, California

Dear Sir:

In compliance with the requirements of Chapter 2316 of the Statutes of 1957 with respect to the feasibility of financing the Southern Crossing of San Francisco Bay by July 1, 1958, this Division has revised its construction cost estimates for the project and has conducted a traffic survey on the Dumbarton, San Mateo-Hayward, and San Francisco-Oakland Bay Bridges to determine the future traffic and revenue possibilities of this crossing.

Reports on traffic and revenue and the feasibility to finance the project will be submitted by others, retained by the Department to perform this work.

As ways and means of constructing this project have been given in four previous reports of the Division, it is my pleasure to submit this report on the revised construction costs and schedules.

Respectfully submitted,



N. C. RAAB
Projects Engineer and
Chief of Division

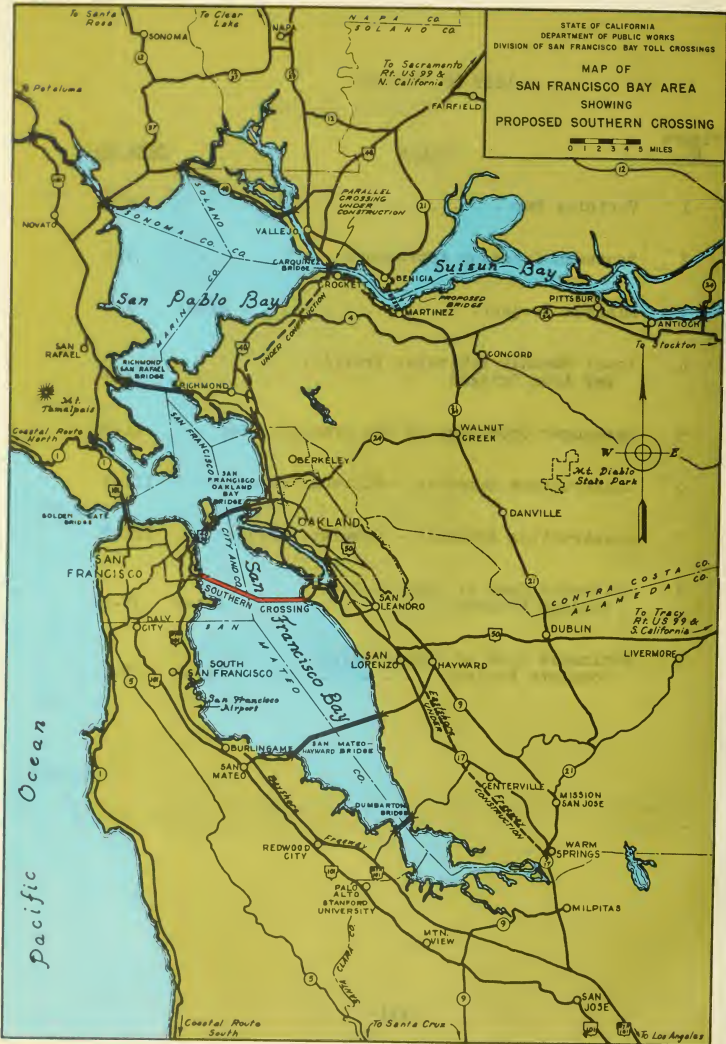
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FIG. 1



P A R T I
I N T R O D U C T I O N

RESUME

The current engineering studies and investigations for a Southern Crossing of San Francisco Bay were authorized by the Legislature of the State of California in 1953. This enabling legislation, Chapter 1056, Statutes 1953, was added to the Streets and Highways Code as Article 2 of Chapter 2, Division 17. (See Appendix A.) Figure 1 shows the Southern Crossing in relation to the other bridges, highways, and cities in the Bay Area and Figure 2 the Crossing as presently authorized.

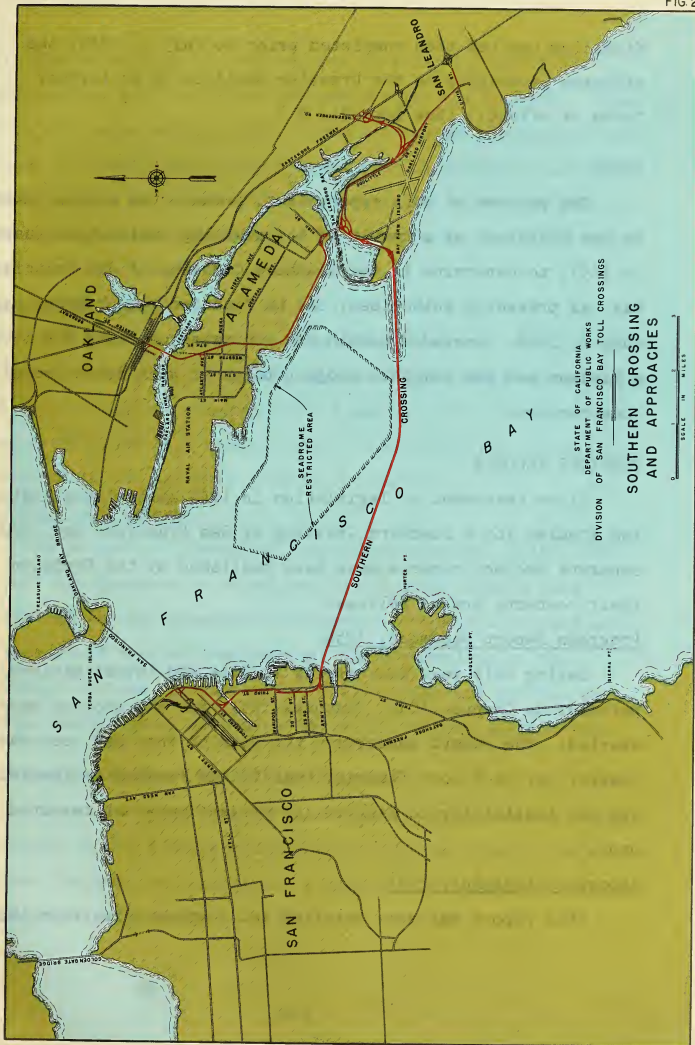
The most recent report prepared by the Division on the project was issued in October 1956 as a result of amendments enacted during the 1956 legislative session. It presented a summary of engineering activities, revised construction schedules and cost estimates, traffic and revenue projections, all based on the then existing conditions and statutes.

During the latter part of 1956 conditions in the money market were such that it was not possible to ascertain readily whether a revenue bond issue for constructing the Crossing would be salable. Therefore, the firm of Smith, Barney & Company was retained by the Department of Public Works to make a detailed investigation and to report thereon. The "Report on Financial Feasibility of the Proposed Southern Crossing of San Francisco Bay" concluded that "(i) the

Complete Southern Crossing is not feasible as presently authorized at a basic toll rate of 25 cents for both the Bay Bridge and the Southern Crossing, and (ii) although the Minimum Southern Crossing appears to meet the requirements for a self-liquidating project in combination with the Bay Bridge at a 25-cent basic rate of toll for both facilities, the...revenue bond financing necessary to finance its construction would not comply with all of the generally accepted investment standards for such securities and the Minimum Southern Crossing must, therefore, be considered marginal as to financial feasibility on that basis, particularly in view of the unfavorable money market conditions..." This financial report and the Division's October 1956 Report were submitted to the California Toll Bridge Authority at its meeting of December 12, 1956.

The Authority, upon receipt of the unfavorable report regarding financial feasibility of the entire project, directed the Department of Public Works to proceed with preparations for the financing of a Minimum Southern Crossing as described in the October report. The Authority stated its intention to be in a position to offer an issue of bonds for sale when a decision is made by the Legislature with respect to financing of any necessary reconstruction of the San Francisco-Oakland Bay Bridge, or other related work, as a part of such project.

During its 1957 Session, the Legislature enacted into law several bills which concerned the Southern Crossing. The most significant, Chapter 2316, provides that if Southern Crossing



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS

**SOUTHERN CROSSING
AND APPROACHES**

SCALE IN MILES
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financing has not been completed prior to July 1, 1958, the statutes pertaining to the Crossing shall be of no further force or effect. (See Appendix B.)

SCOPE

The purpose of this report is to present the action taken by the Division, as a result of the amending legislation enacted in 1957, to determine if the Southern Crossing of San Francisco Bay, as presently authorized, can be financed by, or prior to, July 1, 1958. Included herein are estimates of costs for both a Minimum and the Complete Project together with schedules of construction.

PREVIOUS REPORTS

Since enactment of legislation in 1953 authorizing engineering studies for a Southern Crossing of San Francisco Bay, four separate project reports have been published by the Division. Their contents are as follows:

Progress Report December, 1954

During this year engineering studies and investigations, pursuant to Chapter 1056, Statutes 1953, for the project were started. The report summarized the studies that had been made; however, project cost figures, traffic and revenue estimates, and the feasibility to finance the project were not reported upon.

Report of December, 1955

This report was more detailed and comprehensive than that

of 1954 presenting the information obtained in making the engineering studies and investigations for the project. Drawings and descriptions of the various Crossing components, estimates of traffic and revenue, construction schedules and costs of financing and construction were included therein. This was intended as the final report prior to offering bonds for sale and the commencement of construction.

March 1956 Report

The 1955 session of the Legislature proposed certain alterations be made in the approach system. This report was prepared as a supplement to the Report of December 1955 to present the engineering and cost studies made for the proposed changes as outlined in the Assembly Journal for March 23, 1955.

October 1956 Report

As a result of amending legislation enacted in 1956 this report was prepared to supplement and revise certain data contained in the December 1955 Report. Presented therein were a summary of project engineering; new discussions on the approach systems, revisions in cost, traffic and revenue estimates; and proposed schedules for financing and construction.

REVIEW OF SOUTHERN CROSSING LEGISLATION

There are reproduced in this report, as Appendix A, those portions of the Streets and Highways Code, as amended, which affect the Southern Crossing. A digest of the various laws passed is as follows:

1953 Legislation

In 1953 the State Legislature authorized studies to be undertaken to determine the feasibility of financing and constructing an additional toll bridge or other highway crossing of San Francisco Bay to connect eastbay communities with the City and County of San Francisco. This legislation was later codified as Chapter 1056, Statutes of 1953, and was added as Article 2 to Chapter 2, Division 17 of the Streets and Highways Code.

1954 Legislation

No legislation was enacted which concerned the Southern Crossing Project.

1955 Legislation

During this year, several technical and clarifying amendments, requested by the Department of Public Works, were passed. (Chapter 304, Statutes 1955.)

1956 Legislation

Chapters 40 and 67, Statutes 1956, were enacted to amend Article 2, in the following manner:

- (1) To exclude construction of rapid transit train facilities from the restriction prohibiting competing toll structures.
- (2) To revise the approach systems on both sides of the Bay.
- (3) To provide for the successive issuance of bonds for construction as may be determined by the Toll Bridge Authority.

1957 Legislation

Several bills were introduced in this session of the Legislature which directly concerned the Southern Crossing Act of 1953 and are briefly explained, as follows:

Chapter 866 amends Section 30657 of the Streets and Highways Code by deleting the restriction against the expenditure of State highway construction monies for the construction of any of the approaches to this Crossing.

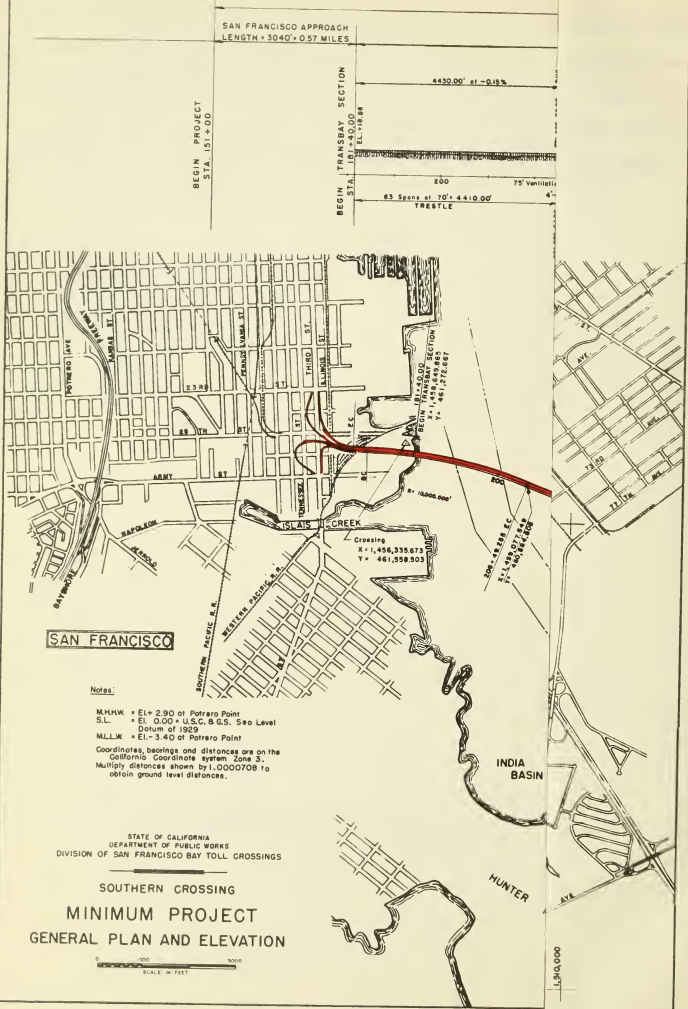
The purpose of this amendment is to permit the expenditure of State highway construction monies for a new Webster Street Tube and for improvement of other roads which are already a part of the State Highway System, but happen to be included in the description of Southern Crossing approaches contained in Section 30654.

Chapter 2249 adds Section 188.3 to the Streets and Highways Code and provides that the costs of maintenance of all toll bridges under the jurisdiction of the Toll Bridge Authority are to be paid out of the State Highway Fund construction monies.

Chapter 2316 adds to the Streets and Highways Code Sections 30609 and 30660 authorizing the Department of Public Works to utilize San Francisco-Oakland Bay Bridge revenues now on hand, and accruing up to July 1, 1961, for the purpose of altering the Bridge and its appurtenances so that the entire Bridge may be used by motor vehicles and the San Francisco Terminal by motor buses instead of trains. This reconstruction

cost has been estimated at \$35,000,000. It also provides that if financing for the construction of the Southern Crossing has not been completed prior to July 1, 1958, the Toll Bridge Authority may exercise all powers and duties under the California Toll Bridge Authority Act as if the Southern Crossing legislation had never been enacted.

FIG. 3



SAN FRANCISCO

Notes:

- M.H.W. = El. + 2.90 at Potrero Point
 - S.L. = El. 0.00 = U.S.C. & G.S. Sea Level Datum of 1929
 - M.L.L.W. = El. - 3.40 at Potrero Point
- Coordinates, bearings and distances are on the California Coordinate system Zone 3.
 Multiply distances shown by 1.0000708 to obtain ground level distances.

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS

**SOUTHERN CROSSING
 MINIMUM PROJECT
 GENERAL PLAN AND ELEVATION**



P A R T I I
1 9 5 7 S T U D I E S

Legislation enacted in 1957 modified the Southern Crossing statutes to allow the use of State Highway Fund monies for the construction of certain portions of the approaches. Accordingly, during the past year the Division has concentrated its efforts on completing plans, specifications, and estimates of construction costs for a Minimum Project as described in subsequent paragraphs. At the present writing plans and specifications for Contract No. 2002, Bay Tube and Fills, which comprises the greater part of the construction costs, are complete.

Minimum Project

The project now planned for construction is shown on Figure 3 and will consist of the overwater crossing with approaches connecting to city streets of major importance in the vicinity of the bridgeheads.

Authorization to construct the approaches of the Southern Crossing in stages is contained in Section 30657 of the Streets and Highways Code. Applicable wording of this section is as follows:

"The authority, to the extent that it finds it feasible to do so in connection with the financing..., shall include sufficient funds in any borrowing or issuance of bonds... as will be necessary for the construction of the approaches... Notwithstanding any other provision..., any such borrowing or issuance may take the form of successive issues or series of bonds, as may be determined by the authority...which...may be sold from time to time..."

Therefore, in accordance with the above, it is planned to construct initially a minimum of the specified approaches as shown. In San Francisco this would consist of the Third and Army Interchange connecting the transbay section to on- and off-ramps at 23rd Street and at Army Street. East Bay approach construction would consist of the Bay Farm Island Freeway and Interchange which would connect the transbay section to Doolittle Drive and the existing Bay Farm Island Bridge. Previous reports on the Southern Crossing have described the alignment and construction details of the overwater crossing and its approaches. Inasmuch as there have been no changes in these components since publication of the report in October, 1956, further discussion thereon will not be made.

Traffic and Revenue

Vehicular traffic on the Bay Area bridges continues to increase at a steady rate, as shown by Figure 4. In 1956 the Bay Bridge carried a total of 33,580,162 vehicles for an increase of 3.86 percent over that carried in 1955. The San Mateo-Hayward Bridge carried a total of 3,099,720 vehicles in 1956 for an increase of 7.07 percent over 1955.

The annual number of passenger crossings of the Bay Bridge, by all carriers, as shown on Figure 5, has remained constant at about 70,000,000 passengers for the past few years.

During September, 1957, the Division conducted a traffic origin and destination survey on the three Toll Bridges across the southern arm of the Bay (See Figure 1), that is, the

Dumbarton, San Mateo-Hayward, and San Francisco-Oakland Bay Bridges. The survey served a threefold purpose as follows:

1. To obtain current basic traffic information such as obtained by the 1947 Bay Area Metropolitan Traffic Survey and to ascertain whether or not highway construction in the years since that survey has effected a change or shift in the major movements of transbay traffic.

2. To obtain revised estimates of vehicular traffic and revenue that would be diverted to, or generated by, a Southern Crossing of San Francisco Bay.

3. To provide sufficient traffic information for the study of improvements to the San Mateo-Hayward Bridge as authorized by Chapter 2416, Statutes 1957.

Information obtained from this survey has been furnished the Division's consultants on traffic and revenue for analysis. Their findings on this subject will be presented in a separate report.

Finance







A firm to be retained by the Department of Public Works will correlate project cost data and estimates of traffic and revenue with their findings of the financial conditions of the current bond market, and will submit a report on the financial feasibility of (i) a Complete Project as presently authorized by Statutes, and (ii) a Minimum Project as reported on herein.

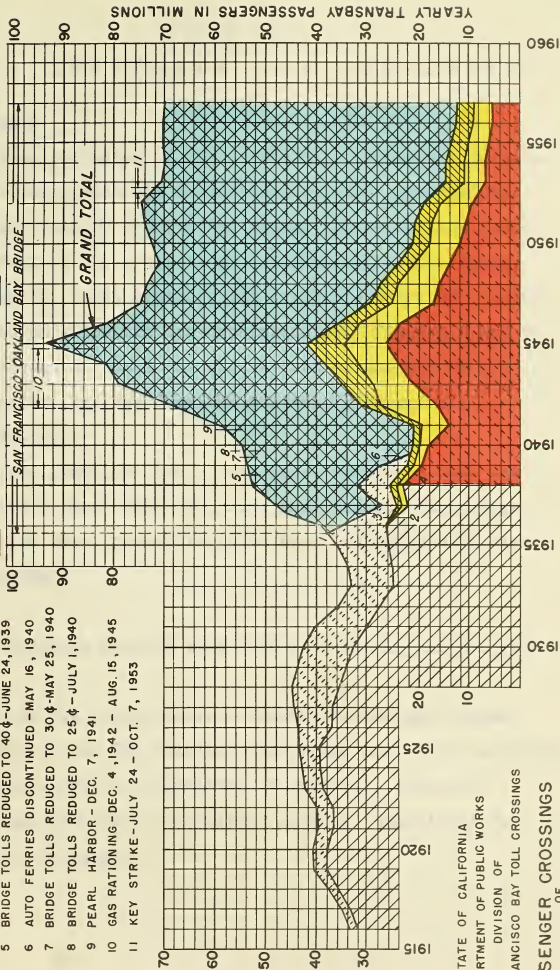
IMPORTANT DATES

- 1 BRIDGE OPENED - NOV. 12, 1936
- 2 KEY BUS OPERATION STARTED - MAY 9, 1937
- 3 AUTO FERRIES REDUCED TO 25¢ - AUG. 15, 1937
- 4 BRIDGE RAILWAY OPERATION STARTED - JAN. 15, 1939
- 5 BRIDGE TOLLS REDUCED TO 40¢ - JUNE 24, 1939
- 6 AUTO FERRIES DISCONTINUED - MAY 16, 1940
- 7 BRIDGE TOLLS REDUCED TO 30¢ - MAY 25, 1940
- 8 BRIDGE TOLLS REDUCED TO 25¢ - JULY 1, 1940
- 9 PEARL HARBOR - DEC. 7, 1941
- 10 GAS RATIONING - DEC. 4, 1942 - AUG. 15, 1945
- 11 KEY STRIKE - JULY 24 - OCT. 7, 1953

LEGEND

PASSENGERS CARRIED BY:

-  AUTO FERRIES
-  PASSENGER FERRIES
-  BRIDGE RAILWAY
-  KEY BUSES
-  OTHER BUSES
-  AUTOS AND TRUCKS



STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF
SAN FRANCISCO BAY TOLL CROSSINGS

PASSENGER CROSSINGS
OF
SAN FRANCISCO BAY

P A R T I I I

1 9 5 8 E S T I M A T E S A N D S C H E D U L E S

COST ESTIMATE

The cost estimates of the Southern Crossing were prepared by this Division with the cooperation of other governmental agencies and various contracting firms. These include costs for constructing the project; an allowance for engineering, administration, legal counsel, and insurance services; rights of way; and an allowance for contingencies. Figures 8 and 9 show breakdowns of costs for the various components of a Minimum Project and the Complete Project, respectively.

Quantity Estimate

Detailed plans for one of the major contracts have now been completed, and other contracts have reached that stage of completion where quantities have been estimated with reasonable accuracy.

Costs

The following methods were used to estimate the project cost:

1. From the large volume of recent bridge and highway construction in the San Francisco Bay Area, unit bids submitted for comparable type and magnitude of work were selected, analyzed, and applied to calculated material quantities for the Southern Crossing.

2. Where unit costs for comparable work were not available, contract costs were developed by estimating labor, materials, and plant required to perform the work. These findings were compared to work of similar nature being performed in other parts of the United States.

3. The proposed design, specifications, construction schedules, and site conditions were discussed with qualified producers and contractors.

4. To the estimated current prices a factor was applied to determine the costs expected to prevail during the time of actual construction. This factor was determined by developing a trend based upon a careful review and analysis of construction cost indices over the past two decades, with particular attention devoted to the last five years. The data thus studied give strong evidence of continued rising construction costs; therefore, the estimates presented herein allow for such increases.

Engineering, Administration, Legal Counsel, and Insurance

An allowance has been added to the estimate for engineering, administration, legal counsel, and insurance which is comparable to that used on the San Francisco-Oakland Bay Bridge and the Richmond-San Rafael Bridge, during construction.

Contingencies

To provide for unforeseen additional items, increased material quantities, and miscellaneous extra costs, an appropriate allowance has been made in the estimated cost for each item of work including rights of way.

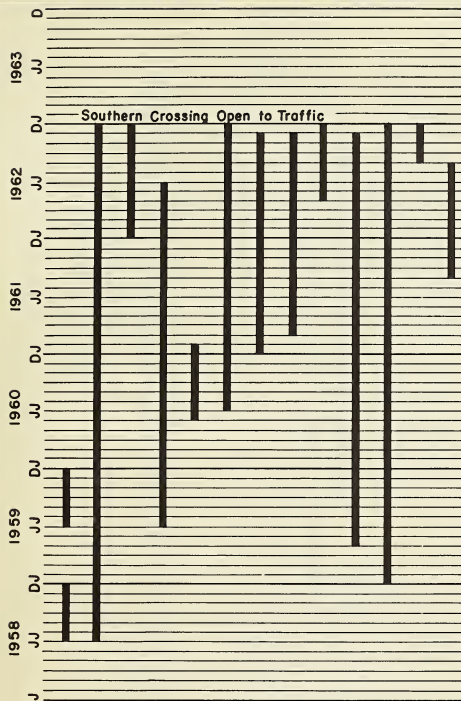
Rights of Way

The estimates for rights of way are based upon fair market value; comparable sales and listings; replacement less depreciation; assessed valuation; costs of acquisition; and attendant utility relocation work.

CONSTRUCTION SCHEDULE

Estimates presented herein are predicted upon the construction schedules shown on Figures 6 and 7 which requires that Minimum or Complete Project construction begin in July, 1958 and be completed in 1962 and 1963, respectively.

Delays in starting or completing the project would probably require a larger bond issue as costs are continuing to rise each year.



STATE OF CALIFORNIA
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DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS

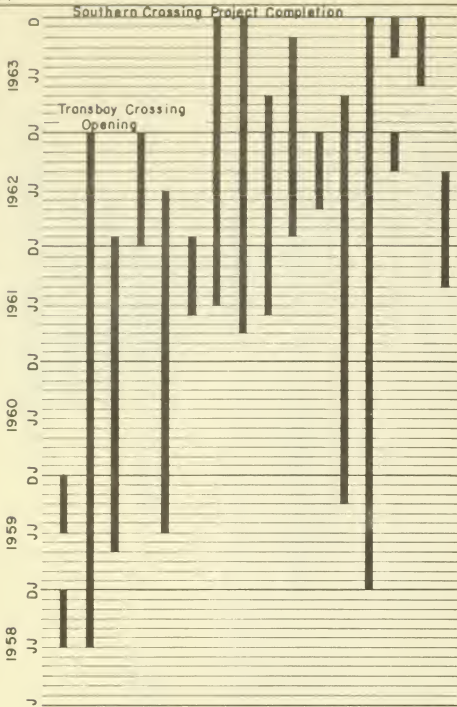
SOUTHERN CROSSING

MINIMUM PROJECT

CONSTRUCTION SCHEDULE

Note: If construction is started after July 1958, completion will be correspondingly delayed.

FIG. 7



NQ	CONTRACT
2001	Foundation Explorations
2002	Bay Tube and Fills
2003	Webster Street Tube
2004	Tube Finishing
2005	Bay Trestle
2007	Railroad Relocation Work
2009	Embarcadero Approach
2012	Alameda Approach
2013	Buildings and Toll Plaza
2014	Eastshore Freeway Approach
2017	Paving
2018	Electrical Work
2019	Mechanical Work
2020	Traffic Stripes and Signs
2022	Landscaping
2023	Toll Collection Equipment

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS
SOUTHERN CROSSING
COMPLETE PROJECT
 CONSTRUCTION SCHEDULE

Note: If construction is started after July 1958, completion will be correspondingly delayed.

CONTRACT NUMBER	SECTION	SUB-SECTION	ESTIMATED COST - THOUSANDS OF DOLLARS				
			CONTRACT	R/W	SUBTOTAL		
2009	EMBARCADERO	APPROACH	A to B	FREEWAY VIADUCT NORWARD TO TOWNSEND ST. VIA THE EMBARCADERO			
			B to C	FREEWAY VIADUCT VIA TOWNSEND ST. FREEWAY VIADUCT VIA FOURTH STREET			
			B to C	FOURTH ST. ON-RAMP			
			C to D	FREEWAY VIADUCT FOURTH TO MARKET ST. VIA THIRD ST. EIGHTH ST. ON-RAMP			
			C to D	FREEWAY VIADUCT MINTERSH TO MARKET ST. VIA THIRDS ST. MARKETA ST. ON-RAMP			
			D to E	MARKETA ST. ON-RAMP BOUNDBOUND NINETEEN ST. OFF-RAMP MONTHBOUND TWENTY-SECOND ST. OFF-RAMP SOUTHBOUND			
			D to E	THIRD AND ARMY INTERCHANGE	6,190	2,150	8,340
			E to F	TWENTY-THIRD ST ON-AND OFF-RAMP	610	300	910
			E to F	ARMY STREET ON-AND OFF-RAMP	490	120	610
			SUBTOTAL				
TOTAL COST - SAN FRANCISCO APPROACHES					9,860		

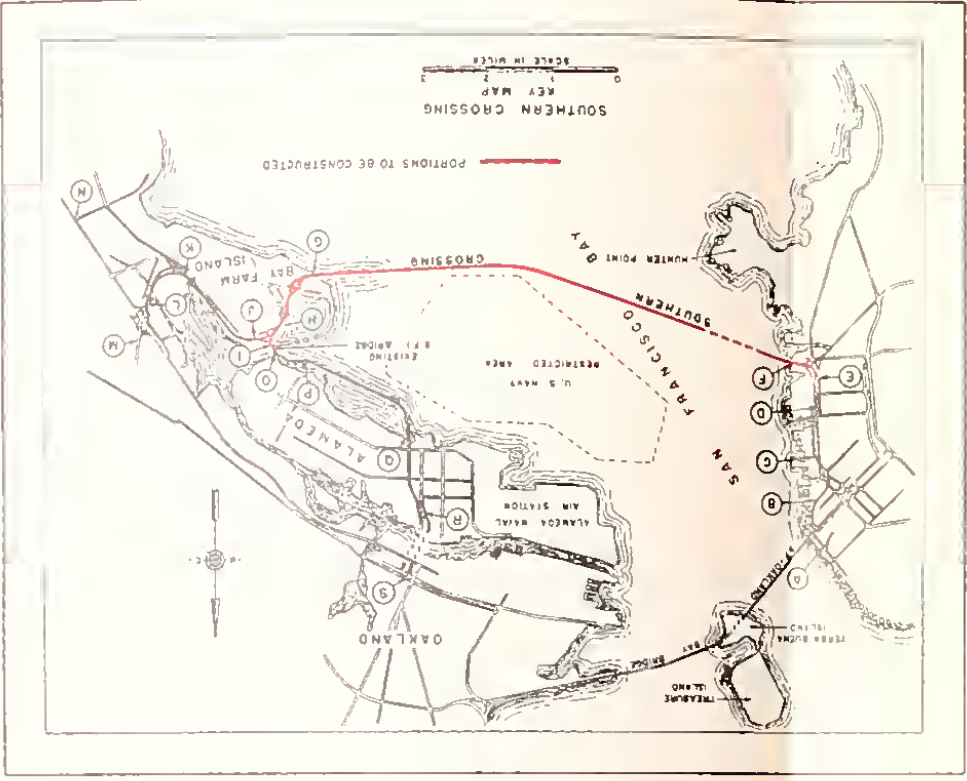
NOTES

1. CONTRACT COST INCLUDES INSURANCE, SALARIES AND WAGES, EQUIPMENT, AND OPERATING EXPENSES.

2. NIGHT-OF-BAY COST INCLUDES UTILITY RELOCATION COSTS.

3. COSTS OF CONTRACTS NO EDOT, RAILROAD RELOCATION, NO. 2020, TRAFFIC STRIFERS AND SIGNS, AND MD. COSTS, LABORATORY ARE INCLUDED IN OTHER CONTRACTS WHERE APPLICABLE.

CONTRACT NUMBER	SECTION	CONTRACT TITLE	ESTIMATED COST - THOUSANDS OF DOLLARS		
			CONTRACT	R/W	SUBTOTAL
8001	F to G	FOUNDATIONS	450	00	450
8002		BAY TUBE AND FILLS	110,970	100	111,070
8004		TUBE FINISHING	570	00	570
8006		BAY TRESTLE	33,710	00	33,710
8013		BUILDINGS AND TOLL PLAZA	2,840	00	2,840
8017		PAVING	720	00	720
8018		ELECTRICAL WORK	4,730	00	4,730
8019		MECHANICAL WORK	1,650	00	1,650
8023		TOLL COLLECTION	720	00	720
TOTAL			156,470		156,470



CONTRACT NUMBER	SECTION	SUB-SECTION	ESTIMATED COST - THOUSANDS OF DOLLARS					
			CONTRACT	R/W	SUBTOTAL			
2014	EASTSHORE FREEWAY APPROACH	G to H	BAY FARM ISLAND FREEWAY WITH TWO INTERCHANGES	2,760	220	2,970		
		H to I to J	DAY FARM ISLAND INTERCHANGE	1,320	480	1,800		
		J to K	SAN LEONARD BAY FREEWAY AND AIRPORT INTERCHANGE					
		K to L	SAN LEONARD BAY FREEWAY AND HEGERBERGEN RD. I.C.					
		L to M	HEGERBERGEN - EASTSHORE FREEWAY INTERCHANGE					
		K to N	DOOLITTLE - DAYVIA HIGHWAY CONNECTION					
		SUBTOTAL					4,770	
		2012	ALAMEDA APPROACH	D to P	OTIS DRIVE INTERCHANGE			
				P to Q	BOUNDBOUND			
				Q to R	EIGHTH STREET MIDWAY			
Q to R	WESTERN STREET INTERCHANGE							
SUBTOTAL								
2003	WESTERN ST. TUBE	R to S	WESTERN ST. TUBE AND RAMP					
		SUBTOTAL					4,770	
TOTAL COST - EASTBAY APPROACHES					4,770			

SUMMARY					
CONTRACT COST			TOTAL		
CONSTRUCTION	\$	6,010,000	SAN FRANCISCO APPROACHES	\$	9,860,000
CONTINGENCY	\$	680,000	TRANSBAY CROSSING	\$	156,470,000
OVERHEAD	\$	2,970,000	EASTBAY APPROACHES	\$	4,770,000
RIGHT OF WAY COST	\$	2,970,000	TOTAL	\$	171,100,000

ESTIMATED COST OF CONSTRUCTION
SOUTHERN CROSSING
MINIMUM PROJECT

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS

CONTRACT NUMBER		SECTION		SUB-SECTION		ESTIMATED COST - THOUSANDS OF DOLLARS	
2009	EMBARCADERO	APPROACH	A to B	FREEWAY VIADUCT	6,560	-	6,560
				BOARD TO TOWNSEND ST VIA THE EMBARCADERO	380	350	730
			A to B	BEAR ST. ON-RAMP	380	350	730
				MAIN ST. OFF-RAMP	580	350	930
			SUBTOTAL	A to B	5,080	630	5,710
				FREEWAY VIADUCT VIA TOWNSEND ST	2,750	100	2,850
				FREEWAY VIADUCT VIA FOURTH STREET	2,750	100	2,850
				FOURTH ST. OFF-RAMP	610	420	1,030
			B to C	FOURTH ST. ON-RAMP	730	940	1,670
				SUBTOTAL	11,260		11,260
			C to D	FREEWAY VIADUCT	7,120	1,290	8,410
				SUBTOTAL	8,800		8,800
C to D	FREEWAY VIADUCT VIA TOWNSEND ST	4,390	1,260	5,650			
	MINTERTON TO WEST TOWNSEND ST VIA TOWNSEND ST	430	320	750			
	MARIPOSA ST ON-RAMP	340	240	580			
	SUBTOTAL	7,520		7,520			
D to E	MINTERTON ST OFF-RAMP	610	300	910			
	MONTICMOUTH	490	120	610			
	THIRD AND ARMY INTERCHANGE	6,880	2,150	9,030			
	SUBTOTAL	10,550		10,550			
E to F	ARMY STREET ON-AND OFF-RAMP	31,100,000	3,800,000	34,900,000			
	TWENTY-THIRD ST. ON-AND OFF-RAMP	32,840,000	3,260,000	36,100,000			
	INTERCHANGE	13,360,000	9,150,000	22,510,000			
	SUBTOTAL	46,450,000	8,070,000	54,520,000			
TOTAL COST - SAN FRANCISCO APPROACHES				46,450			

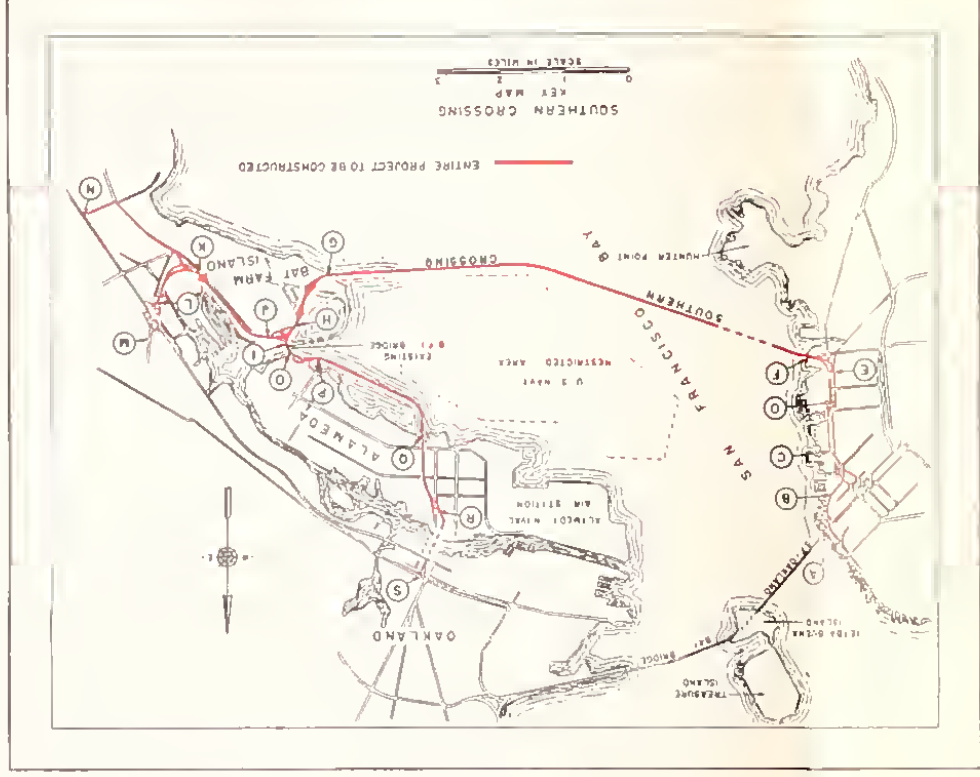
NOTES

1. CONTRACT COST INCLUDES INSURANCE, SALARIES AND WAGES, EQUIPMENT, AND OPERATING EXPENSES.

2. NIGHT-OF-WAT COST INCLUDES UTILITY RELOCATION COSTS.

3. COSTS OF CONTRACTS FOR EOOD, RAILROAD RELOCATION, MD, EOOD, TRAFFIC STRIPES AND SIGNS, AND NO. 20ES, LANDSCAPING ARE INCLUDED IN OTHER CONTRACTS WHERE APPLICABLE.

CONTRACT NUMBER		SECTION		CONTRACT TITLE		ESTIMATED COST - THOUSANDS OF DOLLARS		
2009	TRANSBAY	CROSSING	F to G	FOUNDATION EXPLANATIONS	460	00	460	
				BAY TUBE AND FILLS	110,970	100	111,070	
			F to G	TUBE FINISHING	570	00	570	
				BAT FRESTLE	33,710	00	33,710	
			F to G	BUILDINGS AND TOLL PLAZA	2,840	00	2,840	
				PAVING	720	00	720	
			F to G	ELECTRICAL WORK	4,730	00	4,730	
				MECHANICAL WORK	1,650	00	1,650	
			F to G	TOLL COLLECTION EQUIPMENT	720	00	720	
				SUBTOTAL	156,470		156,470	
			TOTAL COST - TRANSBAY CROSSING				156,470	



CONTRACT NUMBER		SECTION		SUB-SECTION		ESTIMATED COST - THOUSANDS OF DOLLARS				
2009	EASTBAY	APPROACHES	G to H	BAT FARM ISLAND FREEWAY WITH TWO INTERCHANGES	2,700	220	2,920			
				BAT FARM ISLAND INTERCHANGE	1,200	180	1,380			
			G to H	SAN LEANNO BAT FREEWAY AND AIRPORT INTERCHANGE	3,390	450	3,840			
				SAN LEANNO DAY FREEWAY AND AIRPORT INTERCHANGE	3,290	510	3,800			
			K to L	HECKENBERG - EASTBAY FREEWAY INTERCHANGE	380	90	470			
				DOOLITTLE - OAKS HIGHWAY CONNECTION	3,370	400	3,770			
			SUBTOTAL	G to N	10,900	790	11,690			
				SUBTOTAL	16,650		16,650			
			2012	ALAMEDA	APPROACH	O to P	OTIS DRIVE INTERCHANGE	1,090	790	1,880
							SOUTHSHORE HIGHWAY	2,270	30	2,300
						O to R	EIGHTH STREET HIGHWAY	1,400	530	1,930
							WESTER STREET INTERCHANGE	2,110	510	2,620
SUBTOTAL	O to R	3,500	1,020	4,520						
	SUBTOTAL	8,730		8,730						
2003	WEBSTER ST. TUBE	R to S	WEBSTER ST TUBE AND RAMP	8,380	3,020	11,400				
			SUBTOTAL	21,400		21,400				
TOTAL COST - EASTBAY APPROACHES				46,780						

CONTRACT COST		CONTRACT COST		CONTRACT COST		CONTRACT COST	
SAN FRANCISCO APPROACHES	\$ 31,100,000	CONSTRUCTION	\$ 3,800,000	CONTINGENCY	\$ 3400,000	OVERHEAD	\$ 8,070,000
TRANSBAY CROSSING	13,360,000	CONSTRUCTION	9,150,000	CONTINGENCY	100,000	OVERHEAD	156,470,000
EASTBAY APPROACHES	32,840,000	CONSTRUCTION	3,260,000	CONTINGENCY	3,650,000	OVERHEAD	46,780,000
TOTAL	\$ 249,700,000	CONSTRUCTION	12,210,000	CONTINGENCY	7,350,000	OVERHEAD	249,700,000

ESTIMATED COST OF CONSTRUCTION

SOUTHERN CROSSING COMPLETE PROJECT
 DIVISION OF SAN FRANCISCO BAY TOLL CROSSINGS
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

P A R T I V
C O N C L U S I O N S

There have been presented in this report the actions taken by the Toll Bridge Authority, the Department of Public Works and by the Division relative to the matter of financing construction of the Southern Crossing in accordance with legislation enacted during 1957. From the past studies made for this Crossing and the recent additions and amendments to the Statutes affecting the projects in consideration, the following conclusions are presented:

1. The entire project is feasible from an engineering and construction standpoint.
2. Contract plans and specifications for Contract No. 2002, Bay Tube and Fills, are complete and bids could be received in time to comply with the requirements of the Statutes.
3. Contingent upon receiving favorable bids, Contract No. 2002, and upon the successful sale of revenue bonds, project construction could start immediately after July 1, 1958.
4. Construction of the Minimum Project as presented on Figure 8 and of the Complete Project, Figure 9, could be completed in 4-1/2 years and 5-1/2 years, respectively.
5. After completion of the Minimum Project, the remainder of the approaches could be built by stage construction as provided by the Statutes.
6. Any plan for financing the Minimum Project or the Complete Project must consider that the revenues of the San Francisco-Oakland Bay Bridge are pledged by Statute to support (i) the construction of the Southern Crossing and (ii) the reconstruction of the Bay Bridge, estimated at \$35,000,000, for all vehicular use.

7. If construction of the approaches, including the Webster Street Tube, is to be financed from other sources, the Minimum Project construction cost is estimated at \$171,100,000. See Figure 8.
8. Construction cost for the Complete Project as authorized by Statute and as shown in Figure 9, is estimated at \$249,700,000.
9. Since San Francisco-Oakland Bay Bridge revenues are pledged for the construction of the Southern Crossing and reconstruction of the Bay Bridge, any plan of financing by revenue bonds must consider the addition of \$35,000,000 to the bond issue, or only that portion of Bridge revenues in excess of the amount required over the four-year reconstruction period could be utilized for repayment of any Southern Crossing debt service.

A P P E N D I X A

STREETS AND HIGHWAYS CODE

(Amendments and additions enacted by
Chapter 1056, Statutes 1953,
Chapter 304, Statutes 1955,
Chapter 40, Statutes 1956,
Chapter 67, Statutes 1956,
Chapter 866, Statutes 1957,
Chapter 2249, Statutes 1957,
and Chapter 2316, Statutes 1957.)

Division 1. State Highways

Chapter 1. Administration

Article 3. The Department of Public Works

100.7. The department may, for the protection of the State of California, insure any bridge on the State Highway System acquired or constructed under provisions of the California Toll Bridge Authority Act against all risks in any amount up to the full insurable value thereof. In case of damage or destruction, the proceeds of such insurance shall be applied to the restoration of such bridge. Any such bridge may be so insured irrespective of the retirement of all indebtedness incurred for its acquisition or construction, and the cost of such insurance shall be paid from any funds available to the department for highway purposes.

Any such bridge, other than bridges over the San Francisco Bay, shall, after retirement of all indebtedness incurred for its acquisition or construction, be maintained and operated as a free bridge and the cost thereof charged to funds available for maintenance of state highways.

(Amended by Chapter 1056, Statutes 1953.)

188.3. The cost of maintenance of all toll bridges under the jurisdiction of the California Toll Bridge Authority shall be paid out of money in the State Highway Fund available for the construction of state highways, prior to the allocation of money between county groups under Section 188.

(Added by Chapter 2249, Statutes 1957.)

Division 17. Toll Bridges, Toll Ferries,
and Toll Roads

Chapter 1. The California Toll Bridge
Authority Act

Article 7. Protection Against Competing
Facilities

30350. As long as any of the bonds issued pursuant to this chapter for the acquisition, construction, enlargement, extension or change in design or structure of any toll bridge, or other highway crossing are outstanding and unpaid, there shall not be erected, constructed or maintained any other bridge, subway, tunnel, or other crossing over, under, through, or across the waters over which such bridge or other highway crossing is located or constructed, connecting or adjoining directly or indirectly the lands or extensions thereof or abutments thereon on both sides of the waters spanned or crossed by such bridge or other highway crossing within a distance of 10 miles from either side of such bridge or highway crossing, excepting bridges or other highway crossings actually in existence and being maintained, or for which there was outstanding an existing and lawfully issued franchise, at the time of the acquisition or location of the toll bridge or other highway crossing and prior to the time of the authorization of the revenue bonds.

Where a distance of less than 10 miles has been specified in any bond resolution containing the obligations of the authority in connection with any bonds theretofore issued, the department and the authority may construct new bridges or other highway crossings within less than 10 miles of the bridge or other highway crossing for which bonds are outstanding, but the provisions of any bond resolution adopted, prior to January 1, 1955, or similar provisions in any bond resolution thereafter adopted, in connection with the issuance of such bonds shall be observed. But, no such provisions shall prevent the construction of the Southern Crossing within eight miles of the San Mateo-Hayward Bridge.

(Amended by Chapter 304, Statutes 1955.)

30354.5. Neither the limitations nor the provisions of Section 30350, nor similar limitations of any other section of the California Toll Bridge Authority Act, shall apply to the acquisition, erection, construction, maintenance or operation of any rapid transit crossing exclusively for trains and not for passenger automobiles, tracks or buses, at any location within the San Francisco Bay between San Francisco and Alameda Counties.

(Added by Chapter 40, Statutes 1956.)

Chapter 2. Particular Highway Crossings

Article 1. San Francisco-Oakland Bay Bridge

30605. (a) The cost of operation and insurance of the toll bridge and any additional highway crossing of San Francisco Bay constructed between the County of Alameda and the City and County of San Francisco shall be paid by the department from the tolls and revenues received from the use and operation of the toll bridge and additional highway crossing. The cost of operation and insurance of any toll bridge or other highway crossing upon which tolls are now being collected or that may hereafter be acquired or constructed over the San Francisco Bay shall be paid by the department from the tolls and revenues received from the use and operation thereof.

(b) The cost of maintenance (exclusive of the approaches) of the toll bridge and any additional highway crossing of San Francisco Bay constructed between the County of Alameda and the City and County of San Francisco shall be paid by the department from the tolls and revenues received from the use and operation of the toll bridge and additional highway crossing, and the cost of maintenance (exclusive of the approaches) of any toll bridge or other highway crossing on which tolls are now being collected or that may hereafter be acquired or constructed over the San Francisco Bay, shall be paid by the department from the tolls and revenues received from the use and operation thereof, except as follows:

If the terms and conditions of any bonds that are outstanding on the effective date of this section and that are payable from such tolls are such as to require that the cost of physical maintenance of the toll bridge shall be paid from sources other than tolls and revenues from the use and operation of the toll bridge, the cost of such maintenance shall be paid by the department from money accruing and to accrue in the State Highway Fund available for the widening, resurfacing, and reconstruction of state highways for the group of counties designed as Group No. 1 in Section 187 until such bonds are refunded or retired or until payment of the cost of maintenance out of tolls and revenues from the toll bridge is authorized in the manner provided in the proceedings authorizing the issuance of such bonds. The State Highway Fund shall be reimbursed by the authority for all amounts so expended with interest thereon at the rate of one and one-half percent (1-1/2%) per annum to be computed on the total amount expended during any one year.

Whenever after the effective date of this section any bonds secured by pledge of the tolls and revenues of the toll bridge are refunded or retired, in the total then outstanding, the authority shall include in the proceedings for any new issue of bonds for such purpose bonds in a

sufficient amount to repay to the State Highway Fund the amount provided by this section. If the amount is not repaid from the proceeds from the sale of bonds and all revenue bonds secured by revenues on the toll bridge are fully retired, and all other obligations secured by revenues of the toll bridge, whether by means of bond issue or other provisions of law have been fully paid, then such repayment shall be made from the tolls and revenues of the toll bridge, and the authority and the department shall fix and collect tolls on the toll bridge at a rate sufficient to include provision for such repayment until the amount required to be paid into the State Highway Fund by this section has been paid thereto.

The moneys required to be repaid by this section shall be credited to the money available for construction of state highways in County Group No. 1 as specified in Section 187.

(Repealed and added by Chapter 1056, Statutes 1953.)

30606. (Repealed by Chapter 1056, Statutes 1953.)

30607. There shall be repaid into the State Highway Fund the total amount expended therefrom prior to the effective date of this section for maintenance, operation, and insurance of the toll bridge, which amount shall be determined by the department and the authority.

Whenever, after the effective date of this section, any bonds secured by a pledge of the tolls and revenues of the toll bridge are refunded or retired, in the total then outstanding, the California Toll Bridge Authority shall include in the proceedings for any new issue of bonds for such purpose bonds in an amount fully sufficient to repay to the State Highway Fund the amount provided by this section.

If the amount provided to be repaid to the State Highway Fund by this section is not repaid from the proceeds of the sale of bonds, then, after all revenue bonds issued and sold by the California Toll Bridge Authority in the sum of twenty-one million dollars (\$21,000,000) and designated as "San Francisco-Oakland Bay Bridge 1951 Refunding and Improvement Toll Bridge Revenue Bonds, Series A" have been fully redeemed and paid, the authority and the department shall fix and collect tolls on the toll bridge at a rate sufficient to include provision for such repayment until the amount required to be paid into the State Highway Fund by this section has been collected to make such payment.

The moneys required to be repaid by this section shall be credited to the money available for construction of state highways in County Group No. 1 as specified in Section 187.

(Repealed and added by Chapter 1056, Statutes 1953.)

30608. Pending the issuance and sale of bonds secured by the tolls of the San Francisco-Oakland Bay Bridge for the financing of the Southern Crossing specified in Article 2 of this chapter, the authority shall continue to fix and the department shall collect tolls at substantially the same rates as in effect January 1, 1955. Revenues therefrom shall continue to be devoted to fulfilling any obligations of the authority pursuant to any bond indenture or statute in effect on said date, and any surplus revenues shall be held and invested as authorized by law for assistance in the financing of the Southern Crossing or such other purpose as may be authorized or provided by law.

(Added by Chapter 304, Statutes 1955.)

30609. Subject to the limitations hereinafter prescribed and under the provisions of Chapter 1 of this division, the department may make such revisions of, and improvements or alterations to, the San Francisco-Oakland Bay Bridge, its approaches, connections and other appurtenances, including the terminal building in San Francisco, as are deemed desirable and necessary by the department to permit the use of the entire San Francisco-Oakland Bay Bridge for traffic. Such revisions may include work necessary for the routing of traffic in one direction on each deck of the bridge.

The department may use for such purposes any funds now on hand from the revenues of the San Francisco-Oakland Bay Bridge, and the future revenues of the bridge accruing up to July 1, 1961, or so much thereof as may be necessary, over and above those required to repay the State Highway Fund as required by Sections 30605 and 30607, and to provide the costs of maintenance, operation, insurance and other expenses of the San Francisco-Oakland Bay Bridge.

In the event bonds are to be issued for the construction of the Southern Crossing to be secured by the revenues of the San Francisco-Oakland Bay Bridge, the authority may provide for the completion of the work on the San Francisco-Oakland Bay Bridge from the proceeds of bonds to be included in such an issue or it may reserve from the revenues which would secure such a bond issue sufficient revenues to complete the work. To the greatest extent found feasible by the department in planning and conducting the work to be carried out, but without delaying the ultimate completion thereof, the department shall so plan and conduct the work as to permit the rails on the San Francisco-Oakland Bay Bridge to remain in place as long as possible so as to minimize the interruption of transbay rail transportation.

(Added by Chapter 2316, Statutes 1957.)

Article 2. Southern Bay Crossing

(Article 2 added to Chapter 2, Division 17, Streets and Highways Code, by Chapter 1056, Statutes 1953.)

30651. (a) As used in this article, "toll bridge" means that certain bridge across San Francisco Bay known as the San Francisco-Oakland Bay Bridge and the approaches thereto.

(b) As used in this article, "southern crossing" means an additional toll bridge or other highway crossing, as provided by this article and by Chapter 1 of this division, across San Francisco Bay from the City and County of San Francisco to the County of Alameda, and including the approaches thereto.

30652. As soon after the effective date of this section as it may lawfully do so under federal law, the California Toll Bridge Authority shall issue bonds in a sufficient amount to pay or provide for the payment of engineering studies, plans, and specifications of an additional bridge or other highway crossing across San Francisco Bay to relieve congestion of traffic on the toll bridge and to reimburse the State for such engineering expenses as have theretofore been incurred by it for that purpose, which additional bridge or other highway crossing is designated the Southern Crossing. Subject to the provisions of the bond resolution, the proceeds of any bonds issued prior to January 1, 1954, may be used for the payment of all engineering, traffic, and financial studies and expenses in connection with the financing and construction of the Southern Crossing. The authority may issue such additional bonds as are necessary to complete the engineering, plans, specifications, estimates of cost, and all other studies necessary to assure the financing and construction of the Southern Crossing. After the completion of a report including an estimate of costs of financing and constructing the Southern Crossing and its approaches as described in this article, the department may use any funds available to it from the proceeds of any bonds issued under this article by the authority for the additional purpose of studying revisions in the approach system as described and outlined in the Assembly Journal for March 23, 1955, at page 1704.

(Amended by Chapter 304, Statutes 1955.)

30653. (a) The authority and the department shall apply promptly to the appropriate officials of the Federal Government for permission to construct a southern crossing having its westerly terminus in the vicinity of Army and Third Streets in the City and County of San Francisco and its easterly terminus on Bay Farm Island, and shall obtain the necessary permits therefor as promptly as feasible.

(b) If permission to construct the southern crossing at the location specified in subdivision (a) of this section cannot be obtained, the authority and the department shall forthwith determine the most feasible location of the southern crossing and type of construction thereof, located southerly from the toll bridge and having its westerly terminus between the southern city limits and Army Street in the City and County of San Francisco and its easterly terminus on Bay Farm Island, and shall promptly confer with the appropriate officials of the Federal Government from whom permits must be obtained for the construction of such bridge or other highway crossing and shall obtain such permits as promptly as feasible.

30654. The westerly terminus of the Southern Crossing shall be in the vicinity of Third and Army Streets, and the westerly approaches shall include:

(a) A six-lane freeway connection between Army Street and the Embarcadero Freeway in the vicinity of Mission Street along the approximate route of Tennessee Street, Third Street, Fourth Street, Townsend Street, and the Embarcadero with on-and-off ramp connections to city streets in the vicinity of Army Street, on-and-off ramp connections in the vicinity of 23rd Street, two on-ramp and two off-ramp connections in the vicinity of Third Street between 16th Street and 22nd Street, an off-ramp connection in the vicinity of Main and Harrison Streets, an on-ramp connection in the vicinity of Spear and Harrison Streets, an on-ramp connection in the vicinity of Fourth and Brannan Streets, an off-ramp connection in the vicinity of Third Street and Channel Street.

(b) Direct connections between the Southern Crossing, the freeway connection described in subdivision (a), and the southern freeway of the City and County of San Francisco.

If the easterly terminus of the Southern Crossing is on Bay Farm Island at or in the vicinity of a point on the south-westerly shore thereof south of the intersection of Kilkenny Road and the county road connecting Bay Farm Island with the City of Alameda, the easterly approaches shall include:

(a) A freeway crossing Bay Farm Island to the bridge connecting the island with the City of Alameda, with on-and-off ramps in both directions, the first set of such ramps to be located in the vicinity of the intersection of Maitland Drive and County Road and the other set of ramps between the first set and the easterly terminus of the Southern Crossing. The freeway through Bay Farm Island northerly of Mecartney Road shall be contiguous to both Maitland Drive and County Road.

(b) A freeway from a point on the Bay Farm Island Freeway to the intersection of Eastshore Freeway and Hegenberger Road and a highway from such freeway in the vicinity of Hegenberger Road and Doolittle Drive along Doolittle Drive to Davis Street and thence northerly along Davis Street to the intersection of Eastshore Freeway.

(c) A connection from Bay Farm Island to a point on the southerly shore of the City of Alameda and a highway along the southerly shore of the City of Alameda from such point to a southerly prolongation of Eighth Street, thence northerly along Eighth Street to a point near Lincoln Avenue, thence along the Southern Pacific right of way to Atlantic Avenue, and thence to the Posey Tube connecting the City of Alameda and the City of Oakland and a parallel tube which shall be constructed as part of the approaches, with on-and-off ramps in both directions in the vicinity of the north end of the bridge connecting to Bay Farm Island, and with adequate on-and-off ramps connecting the freeway and tubes with the streets in the Cities of Oakland and Alameda and an interchange in the vicinity of Atlantic Avenue and Webster Street in the City of Alameda.

The tube parallel to the Posey Tube connecting the City of Alameda with the City of Oakland at Webster Street, and the approaches to the parallel tubes shall be constructed immediately as soon as money is obtained that may be used therefor either through the sale of revenue bonds the proceeds of which may be used for such purpose or through the refinancing by the Reconstruction Finance Corporation or any other agency.

(Amended by Chapter 67, Statutes 1956.)

30654.5. In the event that any of the approaches specified in Section 30654 involve crossings of property for which federal authorization is necessary and the necessary authorizations cannot be obtained from the appropriate officials of the Federal Government, the authority and the department shall promptly determine appropriate substitutions or revisions in the system of approaches, except that the portion of the freeway described in subdivision (c) of Section 30654 along the line of Main Street shall not be moved easterly more than 900 feet.

(Added by Chapter 304, Statutes 1955.)

30655. If the terminal points of the southern crossing differ substantially from those set forth in Section 30654, the authority and the department shall promptly determine appropriate approaches thereto as soon as its location and type of construction are determined to provide suitable

connection with Bayshore Freeway and if necessary the construction of portions of such freeway and other connections to the main arterial routes in the City and County of San Francisco. It shall likewise determine appropriate approaches in Alameda County, including connections from the easterly terminus of such bridge or other crossing with the Eastshore Freeway at one or more points, and including an additional tube connecting the City of Alameda and the City of Oakland under the Oakland Estuary with suitable connections on each end of said tube. In connection with the location of the approaches to the bridge or other highway crossing to be constructed, the authority shall advise the governing bodies of the City and County of San Francisco, the County of Alameda, and all of the cities in the County of Alameda, as to the approaches it deems appropriate, and upon the request of any such governmental agencies shall hold public hearings concerning the location of said approaches before they are finally determined by the authority.

30656. As soon as surveys, plans, specifications and estimates of cost are completed for the southern crossing and the approaches thereto and the project has qualified for immediate construction under any governmental restrictions then in effect, the authority shall undertake the financing and construction of the southern crossing and the approaches as promptly as possible and without unnecessary delay, except that no construction shall be commenced unless and until all restrictions in the federal law imposing limitations upon the right of the State of California or the authority to collect tolls upon the existing San Francisco-Oakland Bay Bridge for the purpose of constructing a southern crossing of San Francisco Bay, or approaches leading to such crossing, have been deleted. The construction of the southern crossing, however, shall precede construction of any other such crossing.

It is hereby declared to be the intent of the Legislature that the construction of the southern crossing shall be commenced as soon as the federal law is amended so as to permit the collection of tolls upon the existing Bay Bridge for the purpose of constructing a southern crossing; but that this section is not intended to indicate a legislative declaration in favor of amending the federal law to permit collection of the existing bridge's tolls for construction of only one additional crossing, but rather that the Legislature favors amending the federal law to permit collection of such tolls for construction of other crossings in addition to the southern crossing.

30657. The authority, to the extent that it finds it feasible to do so in connection with the financing of the Southern Crossing and the approaches thereto, shall include sufficient funds in any borrowing or issuance of bonds therefor to provide such amounts as will be necessary for the construction of the approaches mentioned in Section 30654 on each side of San Francisco Bay. Notwithstanding any other provision of this article, any such borrowing or issuance may take the form of successive issues or series of bonds, as may be determined by the authority to be in the public interest, which successive issues or series may be sold from time to time as the authority may determine. The expenditure of money in the State Highway Fund for the construction of any of the approaches described in Section 30654 which are part of the State Highway System shall be restricted to money in that fund available for construction of state highways which is required, under Section 188.4, to be expended in the county in which such approaches are located.

(Amended by Chapter 866, Statutes 1957.)

30658. The authority shall consider the possibility of financing through a loan from the Reconstruction Finance Corporation as well as the issuance of bonds under Chapter 1 of this division and shall adopt a method of financing deemed most desirable from the standpoint of interest costs, restrictions that might be imposed by the Reconstruction Finance Corporation, or under any proposed bond indenture, to the end that the best facility designed to meet traffic needs will be constructed at the lowest possible cost. Such financing shall include the pledging of the revenues from the existing San Francisco-Oakland Bay Bridge as well as those of the southern crossing. The authority may exercise any power conferred under Chapter 1 of this division with reference to the borrowing of funds or the issuance of bonds to accomplish the improvements mentioned in this article, and may borrow funds or issue bonds to provide funds as needed to carry on the work.

30659. The California Toll Bridge Authority Act and this article constitute, with respect to all other laws of this State, the latest legislative enactment with respect to the financing and construction of the Southern Crossing and the approaches thereto.

(Added by Chapter 304, Statutes 1955.)

30660. If financing for the construction of the Southern Crossing has not been completed prior to July 1, 1958, all of the sections of this article (commencing at Section 30651), except this section, shall be of no further force or effect, and the Department of Public Works and the California Toll Bridge Authority may exercise all powers and duties under

the California Toll Bridge Authority Act (commencing at Section 30000) as if this article had never been enacted. Such financing of the Southern Crossing shall be undertaken only upon a finding by the authority on the basis of the estimates of cost and anticipated revenue available to it that the rates of toll on the San Francisco-Oakland Bay Bridge in effect on January 1, 1957, should be sufficient to meet all obligations to be assumed in connection with the financing of the Southern Crossing. However, if bonds are issued, the California Toll Bridge Authority shall provide for the inclusion in its bond proceedings of the obligation of the authority to from time to time fix the rates of tolls and charges in accordance with the provisions of Section 30102, it being the intention of the Legislature that when bonds are issued the authority shall be under the obligation to so fix and collect such rates of toll as are necessary to comply with such obligation.

(Added by Chapter 2316, Statutes 1957.)

A P P E N D I X B

CHAPTER 2316

An act to add Sections 30609 and 30660 to the Streets and Highways Code, relating to crossings of San Francisco Bay, declaring the urgency thereof, and providing that this act shall take effect immediately.

The people of the State of California do enact as follows:

SECTION 1. Section 30609 is added to the Streets and Highways Code, to read:

30609. Subject to the limitations hereinafter prescribed and under the provisions of Chapter 1 of this division, the department may make such revisions of, and improvements or alterations to, the San Francisco-Oakland Bay Bridge, its approaches, connections and other appurtenances, including the terminal building in San Francisco, as are deemed desirable and necessary by the department to permit the use of the entire San Francisco-Oakland Bay Bridge for traffic. Such revisions may include work necessary for the routing of traffic in one direction on each deck of the bridge.

The department may use for such purposes any funds now on hand from the revenues of the San Francisco-Oakland Bay Bridge, and the future revenues of the bridge accruing up to July 1, 1961, or so much thereof as may be necessary, over and above those required to repay the State Highway Fund as required by Sections 30605 and 30607, and to provide the costs of maintenance, operation, insurance and other expenses of the San Francisco-Oakland Bay Bridge.

In the event bonds are to be issued for the construction of the Southern Crossing to be secured by the revenues of the San Francisco-Oakland Bay Bridge, the authority may provide for the completion of the work on the San Francisco-Oakland Bay Bridge from the proceeds of bonds to be included in such an issue or it may reserve from the revenues which would secure such a bond issue sufficient revenues to complete the work. To the greatest extent found feasible by the department in planning and conducting the work to be carried out, but without delaying the ultimate completion thereof, the department shall so plan and conduct the work as to permit the rails on the San Francisco-Oakland Bay Bridge to remain in place as long as possible so as to minimize the interruption of transbay rail transportation.

SEC. 2. Section 30660 is added to said code, to read:

30660. If financing for the construction of the Southern Crossing has not been completed prior to July 1, 1958, all of the sections of this article (commencing at Section 30651), except this section, shall be of no further force or effect, and the Department of Public Works and the California Toll Bridge Authority may exercise all powers and duties under the California Toll Bridge Authority Act (commencing at Section 30000) as if this article had never been enacted. Such financing of the Southern Crossing shall be undertaken only upon a finding by the authority on the basis of the estimates of cost and anticipated revenue available to it that the rates of toll on the San Francisco-Oakland Bay Bridge in effect on January 1, 1957, should be sufficient to meet all obligations to be assumed in connection with the financing of the Southern Crossing. However, if bonds are issued, the California Toll Bridge Authority shall provide for the inclusion in its bond proceedings of the obligation of the authority to from time to time fix the rates of tolls and charges in accordance with the provisions of Section 30102, it being the intention of the Legislature that when bonds are issued the authority shall be under the obligation to so fix and collect such rates of toll as are necessary to comply with such obligation.

SEC. 3. This act is an urgency measure necessary for the immediate preservation of the public peace, health or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting such necessity are:

Authority to discontinue transbay rail service on the presently existing rail lines and the substitution of motor coach service therefor has, subject to certain conditions, been granted by the State Public Utilities Commission. Traffic is already congested on the San Francisco-Oakland Bay Bridge and the cessation of train service would result not only in increased congestion, but in leaving one-half of the lower deck of the bridge unused. The necessary construction work to permit complete use of the entire surface of the bridge should be undertaken immediately so that the congestion following the cessation of rail service can be limited to as short a time as possible. It is, therefore, necessary that this act shall take immediate effect.



